HIP-Series (HIP-T + HIP-R)

Installation Manual

HDMI | CAT 5/6 | LAN | HD ready 1080p | WUXGA 1920x1200 | RoHS Compliant

HDMI Unlimited LAN Extender

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GETTING STARTED

1.1 IMPORTANT SAFEGUARDS

Please read all of these instructions carefully before you use the device. Save this manual for future reference. What the warranty does not cover

- Any product, on which the serial number has been defaced, modified or removed.
- Damage, deterioration or malfunction resulting from:
- Accident, misuse, neglect, fire, water, lightning, or other acts of nature, unauthorized product modification, or failure to follow instructions supplied with the product.
- Repair or attempted repair by anyone not authorized by us.
- Any damage of the product due to shipment.
- Removal or installation of the product.
- Causes external to the product, such as electric power fluctuation or failure.
- Use of supplies or parts not meeting our specifications.
- Normal wear and tear.
- Any other causes which does not relate to a product defect.
- Removal, installation, and set-up service charges.

1.2 SAFETY INSTRUCTIONS

The HIP-Series, HDMI Extender has been tested for conformity to safety regulations and requirements, and has been certified for international use. However, like all electronic equipment's, the HIP-Series should be used with care. Read the following safety instructions to protect yourself from possible injury and to minimize the risk of damage to the unit.

⚠ Do not dismantle the housing or modify the module.

⚠ Dismantling the housing or modifying the module may result in electrical shock or burn.

⚠ Refer all servicing to qualified service personnel.

⚠ Do not attempt to service this product yourself as opening or removing housing may expose you to dangerous voltage or other hazards

⚠ Keep the module away from liquids.

⚠ Spillage into the housing may result in fire, electrical shock, or equipment damage. If an object or liquid falls or spills on to the housing, unplug the module immediately.

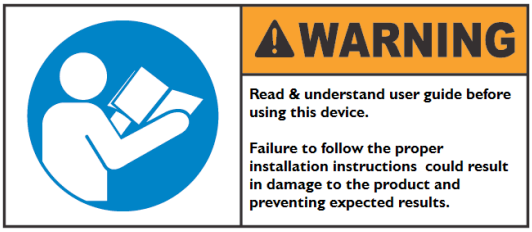
⚠ Have the module checked by a qualified service engineer before using it again.

⚠ Do not use liquid or aerosol cleaners to clean this unit. Always unplug the power to the device before cleaning.

1.3 Regulatory Notices Federal Communications Commission (FCC)

This equipment has been tested and found to comply with Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. Any changes or modifications made to this equipment may void the user's authority to operate this equipment.

Warning symbo	Description
	ONLY USE THE PROVIDED POWER CABLE OR POWER ADAPTER SUPPLIED. DO NOT TAMPER WITH THE ELECTRICAL PARTS. THIS MAY RESULT IN ELECTRICAL SHOCK OR BURN.
	DO NOT TAMPER WITH THE UNIT. DOING SO WILL VOID THE WARRANTY AND CONTINUED USE OF THE PRODUCT.
	THE VIDEO BOARDS ARE VERY SENSITIVE TO STATIC. PLEASE ENSURE IF RACK MOUNTED OR INSTALLED ON A SURFACE, IT SHOULD BE IN A GROUNDED ENVIROMENT.


WARNING
Read & understand user guide before using this device.
Failure to follow the proper installation instructions could result in damage to the product and preventing expected results.

INTRODUCTION

The HIP-Series, HDMI extender set is designed to extend your HD display with the resolutions of 1080p/60Hz up to 330 feet (100 meters) away from your HDMI or DVI-D source. Thanks to the use of the TCP/IP protocol, you can transfer your high-definition video over an existing TCP/IP network. See below three examples:

A: The Tx and Rx units can extend 100 meters over a single CAT5/6 cable connection point to point.
B: The Tx can be connected to a Gigabit switch to establish a IP address therefore sending 1080p video signals to multiple Rx connected to the Gigabit switch and the HDMI displays.
C: Multiple Tx's can be connected to a Managed Gigabit switch with VLAN/IGMP support therefore sending 1080p video signals to Rx connected to the Gigabit switch to show different sources on the HDMI displays.

- Extends HDMI up to 95m/100m over single CAT5E/6
- Supports HDMI, EDID, Support HDCP
- Supports resolution HDTV / 1080Pp/60Hz, Vesa (1920 x 1080)
- Supporting the point to point transmission function currently which can be expanded to the multi-point to point transmission function.
- Requires a managed Gigabit switch with VLAN/IGMP support to have a soultion with multiple sources (Transmitters). Standard Gigabit switch can only support one transmitter.
- The managed switch must support port based IEEE 802.1Q VLAN, IGMP, and to allow duplicate IP addresses across the VLAN domains.
- Each VLAN acts as independent HDMI over IP Channel on the network.
- Number of Tx and Rx that can be used is dependent on bandwidth of the switch (Recommended Gigabit switch 10/1000).
- Managed switches can be cascaded up to 3 levels, allowing the farthest display to be located up to 300 meters away from the source device. Each receiver can be located up to 100 meters away.
- Uses M-JPEG technology to process image compression on a fixed bandwidth.

INTRODUCTION

2.1 PACKAGE CONTENTS

Before you start the installation of HIP-Series, please check the A. STANDARD package contents.

1	HDMI TRANSMITTER X 1 HDMI RECEIVER X 1	
2	POWER ADAPTER (5VDC) X 2	
3	USER'S MANUAL X 1	

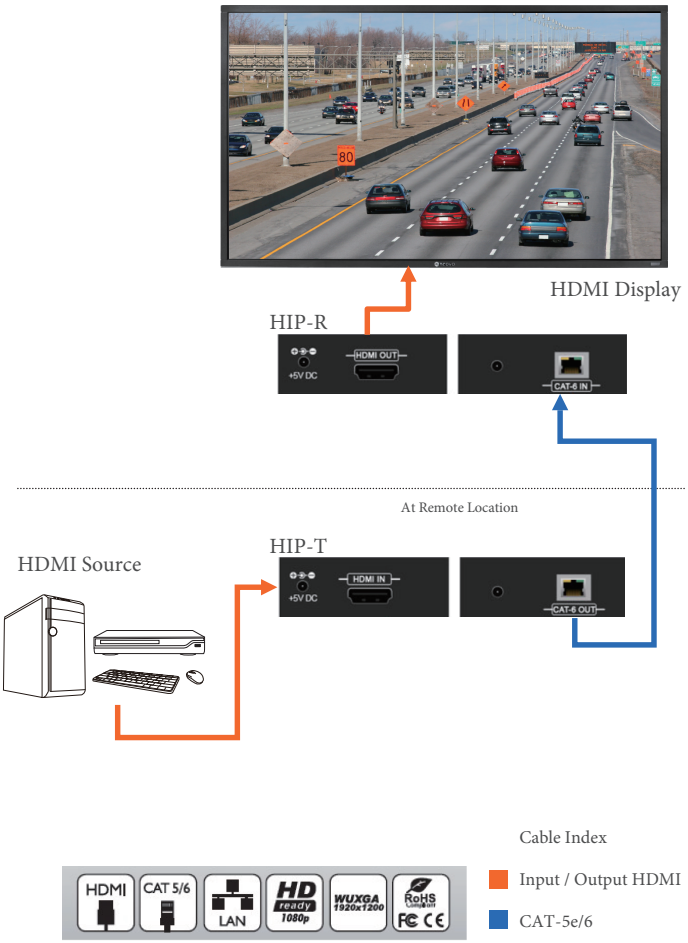
2.2 BEFORE INSTALLATION

- Put the product in an even and stable location. If the product falls down or drops, it may cause an injury or malfunction.
- Don't place the product in too high temperature (over 50°C), too low temperature (under 0°C) or high humidity.
- Use the DC power adapter with correct specifications. If inappropriate power supply is used then it may cause a fire.

INTRODUCTION

Application Diagram 1

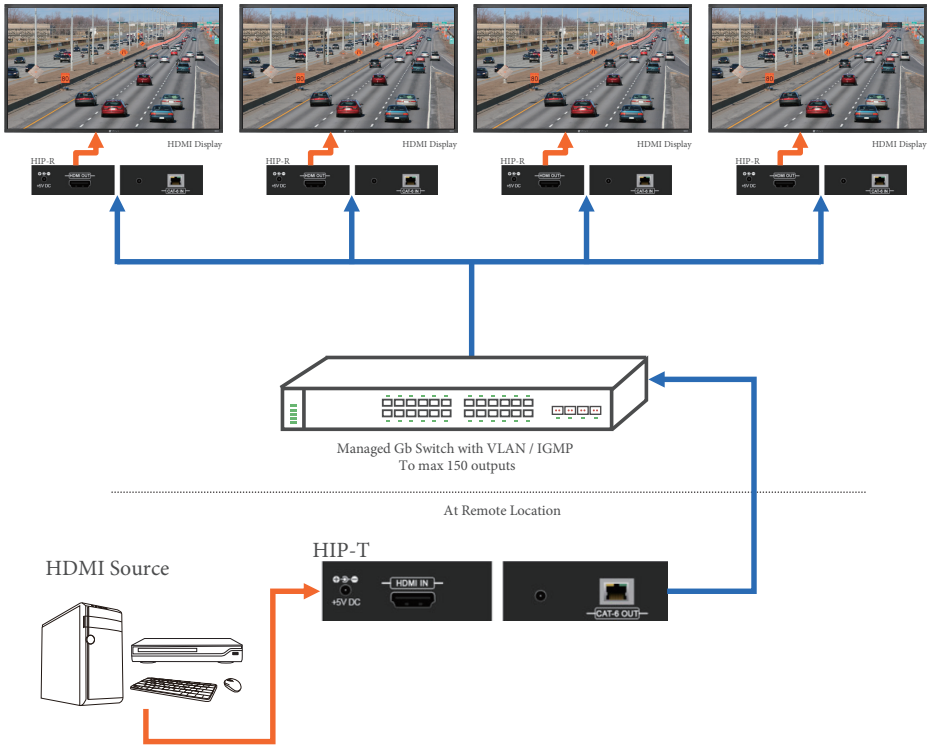
POINT TO POINT



INTRODUCTION

Application Diagram 2

ROUTER CONNECTION



Cable Index

Input / Output HDMI

CAT-5e/6

INTRODUCTION

2.3 Device Description & Layout

This product is composed of a Transmitter and a Receiver.

2.3.1 Front Panel & Rear Panel (Transmitter, HIP-T)

1	CAT5E/6: Plug in a Cat-5E/6 cable that needs to be linked to the receiving unit	3	+5V DC: Connect to 5V DC power supply.
2	SELECT: To pair with the corresponding Transmitter unit.	4	HDMI IN: Connects to a HDMI source with a HDMI male-male cable.

2.3.2 Front Panel & Rear Panel (Receiver, HIP-R)

1	CAT5E/6: Plug in a Cat-5E/6 cable that needs to be linked to the receiving unit	3	+5V DC: Connect to 5V DC power supply.
2	SELECT: To pair with the corresponding Transmitter unit.	4	HDMI OUT: Connects to a HDMI source with a HDMI male-male cable.

NOTES: *Each Transmitter and Receiver after pairing support only point to point operation. It cannot support signals broadcasting by HDMI.*

Important before starting the insulation please ensure that all devices are powered OFF

INSTALLATION

Please ensure all the package contents are all received.

To setup the HIP-Series follow these steps for connecting to a device:

1. Connect your HDMI source (such as a Blu-ray Disc player) to Transmitter (HIP-T).
2. Connect your HDMI display (such as a LCD TV) to the receiving unit HIP-R.
3. Connect your CAT-5E/6 follow the standards of TIA-568BLAN cable between the transmitting and receiving units.
4. Make sure CAT-5E/6 LAN cable is tightly connected and not loose.
5. Plug in 5V DC power cord to the power jack of the transmitting unit HIP-T
6. Plug in 5V DC power cord to the power jack of the receiving unit HIP-R.

GENERAL TROUBLESHOOTING

PROBLEM	POSSIBLE SOLUTION
NO IMAGE	• Check if connection to the source and the display are correct. • Ensure that display device supports 480p, 720p and 1080p resolution
SCREEN DEFECTS APPEAR	• Check the DVI and HDMI connection
YELLOW LIGHT ON LAN PORT FLASHING SLOW	• Check both units and make sure the TX and RX are not Reversed • Check the source device is powered ON
YELLOW LIGHT ON LAN PORT FLASHING FAST/ NO IMAGE	• Check Graphics card on PC. This product supports up to 1080p (1920x1080) resolution.
NO YELLOW LIGHT ON LAN PORT	• Check Network cable only use TIA-568B Standard • Network cable run is out of range

SPECIFICATIONS

ITEM	DESCRIPTION	
UNITS	HIP-T	HIP-R
UNIT DESCRIPTION	HDMI Transmitter	HDMI Receiver
HDMI COMPLIANCE	Full HD	
HDCP COMPLIANCE	Yes	
VIDEO BANDWIDTH	M-JPEG technology to process image compressing GIGABIT (10/1000) OVER LAN	
SUPPORTED RESOLUTIONS	480i@60Hz, 480p@60Hz, 576i@50Hz, 576p@50Hz, 720p@50/60Hz, 1080i@50/60Hz, 1080p@50/60Hz	
RESOLUTION AND DISTANCE (24-BIT)	Full HD: (1080p)-95meter (295feet) (CAT5e) / 100meter (328feet) (CAT6)	
AUDIO SUPPORT	Surround Sound (up to 7.1 Ch) or Stereo Digital Audio	
IR PASS-THRU	No	
RS-232 SUPPORT	No	
INPUT	1x HDMI	1x RJ45
OUTPUT	1x RJ45	1x HDMI + 1x 3.5mm
HDMI CONNECTOR	Type A (19 pin female)	
RJ45 CONNECTOR	WE/SS 8P8C with 2 LED indicators	
POWER ADAPTER	2 X DC 5V/1A	
POWER CONSUMPTION	3W Max Each	
DIMENSION L X W X H	(Tx: 4.3” Rx: 4.3”) x (Tx: 2.2” Rx: 2.2”) x (Tx: 1” Rx: 1”)	
WEIGHT	245g	

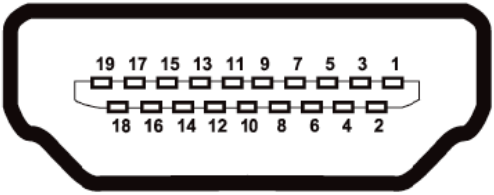
Environmental

OPERATING TEMPERATURE	32˚ ~ 104˚F (0˚ to 40˚C)
STORAGE TEMPERATURE	-4˚ ~ 140˚F (-20˚ ~ 60˚C)
RELATIVE HUMIDITY	20~90% RH (no condensation)

PERFORMANCE GUIDE FOR HDMI OVER CATEGORY CABLE TRANSMISSION

PERFORMANCE RATING		TYPE OF CATEGORY CABLE		
WIRING	**SHIELDING**	**CAT5**	**CAT5E**	**CAT6**
SOLID	UNSHIELDED (UTP)	★★★	★★★★	★★★★★
	SHIELDED (STP)	★★★	★★★	★★★★
STRANDED	UNSHIELDED (UTP)	★	★★	★★
	SHIELDED (STP)	★	★	★★
TERMINATION		PLEASE USE **EIA/TIA-568-B** TERMINATION (**T568B**) AT ANY TIME		

PIN & WIRING STANDARD DEFINITION



Type A (Receptacle) HDMI

Pin 1	TMDS Data2+	Pin 11	TMDS Clock Shield
Pin 2	TMDS Data2 Shield	Pin 12	TMDS Clock–
Pin 3	TMDS Data2–	Pin 13	CEC
Pin 4	TMDS Data1+	Pin 14	Reserved (N.C. on device)
Pin 5	TMDS Data1 Shield	Pin 15	SCL
Pin 6	TMDS Data1–	Pin 16	SDA
Pin 7	TMDS Data0+	Pin 17	DDC/CEC Ground
Pin 8	TMDS Data0 Shield	Pin 18	+5V Power
Pin 9	TMDS Data0–	Pin 19	Hot Plug Detect
Pin 10	TMDS Clock+		

Service Contact: service.nl@agneovo.com